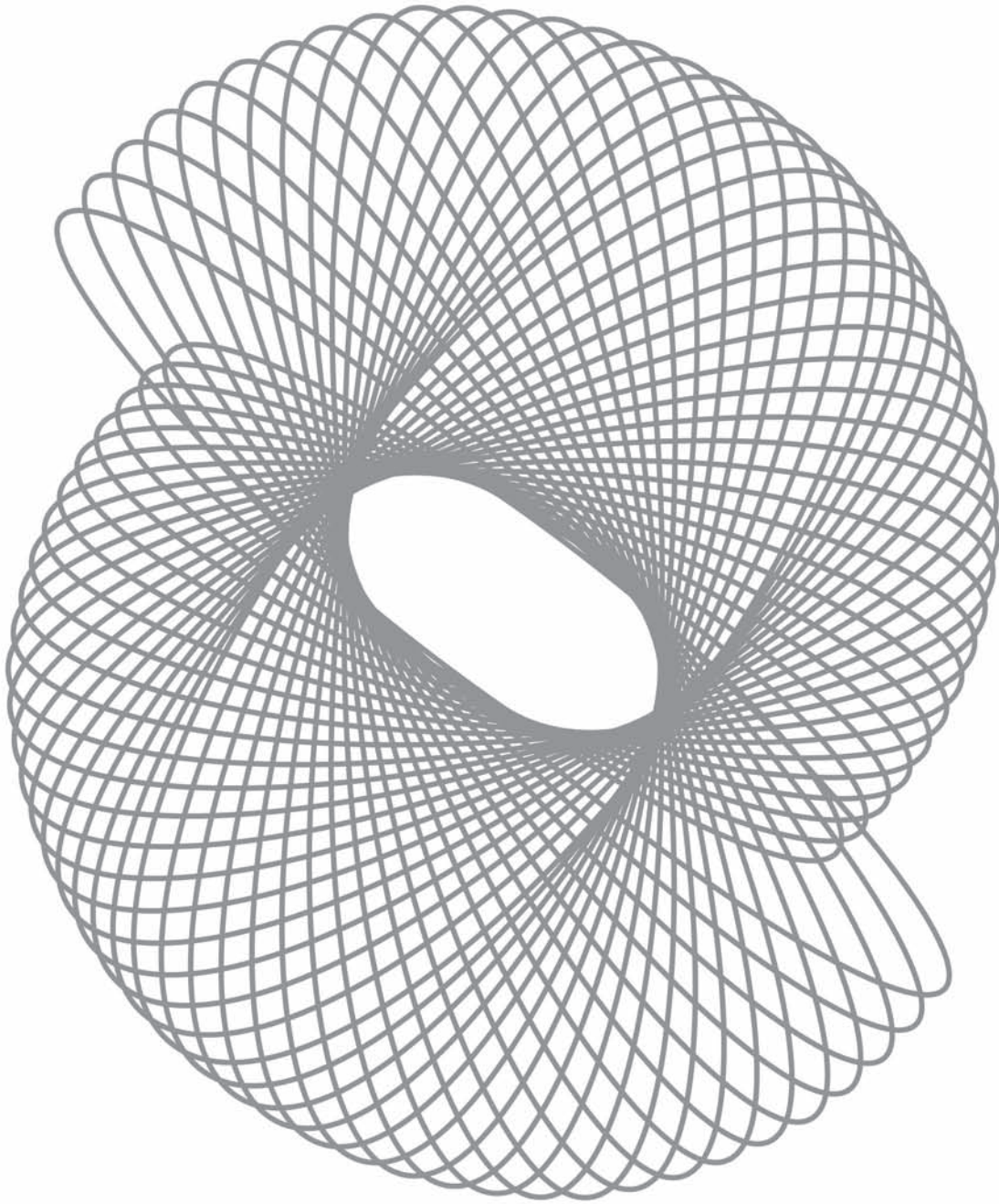


LINKING LEADERS

Community for Change:

Celebrating Ten Years



LINKING LEADERS HISTORY

The Education Challenge

In the mid 1990's, worrisome gaps were identified in the mathematical, scientific, and technological literacy of the U.S. population. Issues such as the under-representation of women and minorities in technical fields, student performance on international assessment instruments, and student readiness for the workplace emerged as critical weaknesses of the U.S. system. In conjunction, state educational standards for almost every subject became a nationwide trend.

The Perfect Partnership

During this time, the National Aeronautics and Space Administration's (NASA) Educational Office concluded that a monolithic, one-size-fits-all model was inappropriate and ineffective for supporting technical education across America. NASA's education leadership sought to support the source of a coherent voice for the states' improvement agendas.

The National Alliance of State Science and Mathematics Coalitions (NASSMC) provided NASA with the perfect partnership opportunity. Initially formed in 1994, NASSMC grew out of a project sponsored by the Mathematical Sciences Education Board of the National Research Council. The purpose of NASSMC was to bring state coalitions of business, education, and policy leaders under one national umbrella. NASSMC set out to develop strategies to strengthen existing coalitions while at the same time building new ones.

Linking Leaders Emerges

The Linking Leaders program was established by NASA in collaboration with NASSMC. This partnership provided the ideal vehicle to support the separate and diverse reform efforts of individual state coalitions as a strategy for systemic change. NASA's commitment to education is based on the support of each state's education vision. If the sectors of education, state government, and business share a collective vision, then NASA resources can be aligned to support it. On the other hand, if education, policy, and business leaders are all working hard but at cross-purposes to improve education, then the vector sum of their efforts may be zero.

Linking Leaders for Systemic Reform was launched in 1995 and the first Linking Leaders Workshop was held in Cleveland, Ohio in 1996. With the assistance of NASA funding, NASSMC has extended the Linking Leaders program to twenty-three states. In addition to building new coalitions, the program has evolved in recent years to offer specialized support and technical assistance to the older, more well-established coalitions. Now called Linking Leaders for Systemic Improvement, the program has changed the dynamics of NASA's interaction with the states and has led directly to the establishment of coalitions in four states where no organization existed prior to the NASSMC/NASA presence.

From Linking Leaders I in 1996 to Linking Leaders IX in 2004, the program has been conducted in the states of Alabama, Colorado, Florida, Idaho, Illinois, Iowa, Kentucky, Maryland, Minnesota, Mississippi, Nebraska, New Hampshire, New Mexico, Ohio, Oklahoma, Pennsylvania, South Carolina, Tennessee, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

NASSMC HISTORY

The National Alliance of State Science and Mathematics Coalitions (NASSMC) is an umbrella organization for state coalitions of business, education, and public policy leaders united for the improvement of mathematics, science, and technology education (MSTE) for all students. NASSMC is a network of thirty-seven state coalitions and serves as the national advocate for its member organizations.

Vision and Goals

A non-profit association, NASSMC works state-by-state in pursuit of its vision that all U.S. students will have the necessary knowledge of, understanding of, and skills in mathematics, science, and technology, so they can be productive in their personal, work, and civic lives. The nation will have a competent and competitive workforce that continues to meet the challenges of the global economy. NASSMC's member coalitions work to bring coherence and added value to the separate efforts of many individuals and organizations. Coalitions pursue goals not achievable by any one organization or sector working alone. All Americans need and deserve to receive the best possible education in mathematics, science, and technology for their personal and civic lives.

To this end, NASSMC performs a variety of beneficial activities:

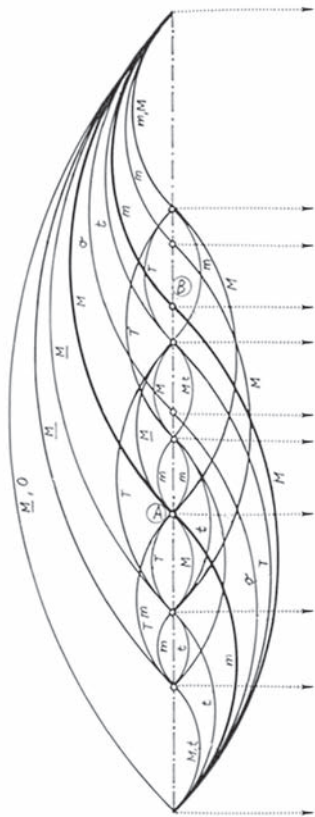
- Helping each coalition develop a state-specific strategy to improve mathematics, science, and technology education;
- Linking state coalition leaders to each other and to major national initiatives;
- Serving as the national ears and voice of its member coalitions;
- Providing a national forum for the discussion of critical issues relevant to continuous and systemic improvement of mathematics, science, and technology education; and
- Supporting timely dissemination of information relevant to the continuous and systemic improvement of mathematics, science, and technology education.

NASSMC's Development

NASSMC evolved from a 1989 project of the Mathematical Sciences Education Board of the National Research Council. For five years, the project focused on developing coalitions of state-level leaders committed to promoting adaptation and implementation of new state standards for school mathematics and later, science based upon national models. In 1994, directors of the state coalitions initiated by the project decided to establish NASSMC as a national nonprofit organization with headquarters in Washington, DC. At the direction of its Board, NASSMC adopted a larger mission of supporting its member coalitions in the promotion of systemic improvement of mathematics, science, and technology education for all students in grades K-16.

In pursuit of its mission, NASSMC has designed and executed projects testing processes and materials for strengthening the structure and programs of its member coalitions. In collaboration with the Education Commission of the States and the NASA, it has developed a state-based model for working with business, education, and policy leaders to address continuous improvement in school mathematics, science, and technology. NASSMC also established the NASSMC Briefing Service, an Internet-based service providing leaders across the nation with concise and timely information about programs, research results, and public opinion relating to mathematics, science, and technology education.

In August of 2002, NASSMC moved its offices to the National Science Teachers Association (NSTA) Building at 1840 Wilson Boulevard, in neighboring Arlington, Virginia. In this new location, NASSMC works in close proximity to the Triangle Coalition for Science and Technology Education and with the programs and operations of NSTA. The organization continues, through the efforts of its member coalitions, to support comprehensive and coordinated change in mathematics, science, and technology education and to promote public awareness and understanding of the need for such change.



As members of the Mathematical Science Education Board and serving on the founding committee for state coalitions, local representatives wanted Iowa to become one of the first states to form a coalition. The state already had the Iowa Alliance for Science. After operating a few years as the Iowa Mathematics Coalition, the two entities became one, joined NASSMC, and sought NSF funds to address systemic improvement of mathematics, science, and technology education in Iowa. This new entity was called the Iowa Mathematics and Science Coalition (IMSC).

The IMSC Governing Board has members (usually the president) from state organizations such as the School Administrators of Iowa, the Iowa School Board Association, the Iowa Parent Teachers Association, and the Iowa State Education Association. Members also included the chair of the Iowa Business Council and also several business leaders. At most IMSC meetings, at least one legislator (education chair) is present and also an education lobbyist.

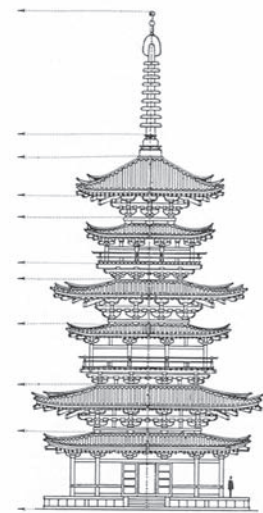
As mathematics and science education in Iowa continues to evolve to meet the needs of student learners, IMSC finds that the Coalition is in a position to help support educators as they work to improve student achievement in science and mathematics.

VITAL STATISTICS

Linking Leaders Class
2001

Coalition Milestones
Founded - 1991

Website URL
Not applicable



FEATURE STORY: *SETTING THE STANDARDS*

Iowa's State Board of Education adopted eight Teaching Standards with model criteria in 2002. Using these standards, teachers are evaluated by school administrators.

When Iowa decided to develop these State Teaching Standards, the Coalition immediately brought state leaders in to meet with classroom teachers and discuss the eight Standards and forty-two Criteria.

This was followed with many small group sessions until it was clear that a document was needed to help educators demonstrate their knowledge and skills in meeting the Teaching Standards.

The IMSC, in collaboration with teacher leaders, administrators, and consultants, matched the criteria to the NSES Teaching Standards and the NCTM Principles and Standards documents. A printed matrix was created with specific suggestions on artifacts (data points) to show support of implementation by the education professional - thereby demonstrating their competencies in mathematics and science.

These supportive documents and the suggestions matrix are widely distributed to administrators, educators, and other school personnel throughout the state.

COALITION RESULTS



In January of 2005, the IMSC sponsored a Science, Technology, Education, and Mathematics (STEM) Day in the State Capitol Rotunda. IMSC is hopeful that this first appearance becomes a yearly event.



IMSC hosts a two-day Governor's Conference for Mathematics and Science – an ongoing tradition for the last five years.



IMSC hosts the Regent's Academy for Mathematics and Science (RAMS) – a one-day conference with funding from the Iowa Legislature and participation from the Iowa Department of Education's Community College Division.



IMSC has created the Iowa Teaching Standards in Mathematic Classrooms

document, the Iowa Teaching Standards in Science Classrooms document, and the Licensing Requirements for Teachers of Science and Mathematics. State Board of Educational Examiners approved new science and middle grades mathematics requirements and are presently reviewing elementary mathematics requirements.



IMSC assists with a partnership with a NASA Explorer School.



IMSC created the "What to Look For in a Mathematics and Science Classroom" informative brochure.



IMSC makes regular presentations to Iowa's mathematics and science consultants and works closely with Iowa's State Department of Education.

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FUTURE GOALS

IMSC has identified two key goals for the years ahead:

- 1) Add five new business members to the IMSC board. The Coalition has a membership plan and hopes to reach this goal.
- 2) Become a more visible presence in the state. One way the Coalition plans to address this is by continued sponsorship of a STEM day in the rotunda of the State Capitol at the beginning of each Legislative session.

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LESSONS LEARNED

When attending NASSMC Conferences, IMSC always comes home with new ideas. The leadership left last year's conference with the goal of designing a new brochure to explain the Coalition's work. This was accomplished and Rockwell Collins underwrote the design and printing of the new brochure.



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